

## REMARKS

Upon entry of the present amendment, claims 1-14, 16-24, and 28-29 will be pending in the application. Of these, claims 16-24 have been withdrawn from consideration. Claim 1 has been amended in accordance with the requirements of U.S. patent practice. In particular, the limitations that “non-leaflet shaped particles and leaflet-shaped particles of (B) comprise a binder” “and have an average size of from 20 to 500  $\mu\text{m}$ ” have been added, and the arrangement of some of the other claim limitations has been modified. Support for the new limitations is found at least at p. 13, lines 4-10, p. 8, lines 19-23, and p. 12, lines 26-30 of the Application as filed, and in previously presented claim 15, now cancelled.

New claims 28-29 have been added to further claim the invention. In particular, claim 28 recites that “the at least one oligomeric and/or polymeric binder of the particles (A) has a melting point or melting range situated at least 10°C below the melting point or melting range of the binder of the particles (B)”. Support is found at least at p. 10, lines 6-10. Claim 29 recites that “the at least one oligomeric and/or polymeric binder of the particles (A) has a minimum film-forming temperature of at least 0°C”. Support is found at least at p. 10, lines 11-14.

Any amendments to, cancellation of, and additions to, the claims, as set forth above, are made in order to streamline prosecution in this case by limiting examination and argument to certain claimed embodiments that presently are considered to be of immediate commercial significance. Amendment or cancellation of the claims is not in any manner intended to, and should not be construed to, waive Applicants' right in the future to seek such unamended or cancelled subject matter, or similar matter (whether in equivalent, broader, or narrower form) in the present application, and any continuation, divisional, continuation-in-part, RCE, or any other application claiming priority to or through the present application, nor in any manner to indicate an intention, expressed or implied, to surrender any equivalent to the claims as pending after such amendments or cancellations.

Reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

1. Rejection of claims 1-3 and 5-8 under 35 U.S.C. 103(a) as being obvious over JP2004-175813 to Takano. The English language equivalent, U.S. Patent No. 7,485,674 (hereafter "Takano"), was used for the citation of column and line.

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree, at least to the extent that the rejection may apply to claim 1 as herein amended, or to new claims 28-29. Takano does not teach or suggest all the limitations of these claims. Takano discloses a powder coating composition comprising a "powder coating particle including thermosetting resin powder, and adhesive binder, and *a flake pigment bound to a surface of the thermosetting resin powder by means of the binder*" (Takano, claim 1 and col. 3, ll. 51-55). Claim 1 of Applicants' present application requires, on the other hand, that component (B) is "free from leaflet-shaped effect pigments".

In response, the PTO states:

The applicant argues that Takano and Hashizume disclose that the pigment is bounded to the resin. The Examiner respectfully submits that there is no limitation in the claims that the compound B can not be bound with compound A. The Examiner interprets the limitation that ".....which are free from leaf-shaped effect pigment" as the compound when it is a leaf-shaped particle it can not be leaflet-shaped effect pigment.

*(Office Action of 1/6/10, p. 3, third paragraph)*

Applicants respectfully disagree. Claim 1 has been amended with the following limitation: "the non--leaflet shaped particles and leaflet-shaped particles of (B) . . . are free from leaflet-shaped effect pigments". This limitation makes it clear that both the non-leaflet and leaflet shaped *particles* of (B) are free from *leaflet-shaped effect pigments*. In order for this claim limitation to apply, component (A) (comprising leaflet-shaped effect pigment) cannot be bound with component (B). That is, Applicants' express claim language excludes the interpretation relied upon by the PTO.

In addition to the foregoing difference between the disclosure of Takano and the present claims, Takano does not teach or suggest the following limitations of claim 1:

that the at least one leaflet-shaped effect pigment is in parallel orientation to the surface of the leaflet-shaped particles (A); and

that the non-leaflet shaped particles and leaflet-shaped particles of (B) have an average size of from 20 to 500  $\mu\text{m}$  and a laminar diameter D to layer thickness d, D:d, of < 10:1.

With respect to new claims 28 and 29, Takano does not teach or suggest that the at least one oligomeric and/or polymeric binder of the particles (A) has a melting point or melting range situated at least 10°C below the melting point or melting range of the binders of the particles (B) or has a minimum film-forming temperature of at least 0°C.

Since Takano does not teach or suggest all the limitations of claim 1 and claims 2, 3, 5-8, and 28-29, which depend therefrom, Applicants submit that these claims are patentable over Takano. Reconsideration and removal of the obviousness rejections over Takano are respectfully requested.

2. **Rejection of claims 1 and 13-14 under 35 U.S.C. 103(a) as being obvious over German Publication No. DE 100 27 293 A1 to Lassmann et al. Page and paragraph numbers were taken from the EPO machine translation of Lassmann (hereafter "Lassmann").**

In particular, the PTO alleges:

Regarding claims 1, and 13, DE '293 discloses a pigment composition containing a platelet aluminum effect pigment coated with polymer and a transparent powdery coating. . . . The transparent particles can be resin or titanium oxide. (Page 3 paragraph 5, page 4 paragraph 10)

*(Office Action of 7/23/09, par. spanning pp. 4 and 5)*

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree, at least to the extent that the rejection may apply to claim 1 as herein amended, or to new claims 28-29. Lassmann does not teach or suggest all the limitations of these claims. In particular, Lassman does not teach or suggest that the particles (B) are transparent. With respect to the disclosure of p. 3, paragraph 5 of Lassmann, the cited passage is referring to the oligomer and/or polymer coating of the effect pigment particles, which correspond to Applicants' particles (A), not particles (B), of the present claims. The cited passage only teaches that the oligomers and/or polymers that make up the coating of the effect pigment particles are transparent.

In response, the PTO states:

The applicant argues that the prior art disclose that the resin layer is transparent not the particle. The Examiner respectfully submits that the layer is made up by the resin particles.

*(Office Action of 1/6/10, p. 3, fourth paragraph)*

Applicants respectfully disagree. The optical properties of the polymer layer of the effect pigment particles are not relevant to polymer particles (B) of the present claims. The present claims require that particles (B) are transparent and be "...free from leaflet-shaped effect pigments". . The cited passage of the reference is silent as to the optical properties required by Applicants' particles (B).

With respect to the disclosure of titanium dioxide on p. 4, p. 10, Lassmann does not teach or suggest that the titanium dioxide is a transparent grade. Taking the paragraph as a whole, the skilled person will conclude that it teaches opaque, not transparent, pigments. More importantly however, claim 1 as herein amended requires that particles (B) comprise a binder. Titanium dioxide is not a binder.

In addition to the foregoing difference between the disclosure of Lassman and the present claims, Lassmann does not teach or suggest the following limitations of claim 1:

that the at least one leaflet-shaped effect pigment is in parallel orientation to the surface of the leaflet-shaped particles (A); and

that the non-leaflet shaped particles and leaflet-shaped particles of (B) have an average size of from 20 to 500  $\mu\text{m}$  and a laminar diameter D to layer thickness d, D:d of  $< 10:1$ .

With respect to new claims 28 and 29, Lassmann does not teach or suggest that the at least one oligomeric and/or polymeric binder of the particles (A) has a melting point or melting range situated at least  $10^{\circ}\text{C}$  below the melting point or melting range of the binders of the particles (B) or a minimum film-forming temperature of at least  $0^{\circ}\text{C}$ .

Since Lassmann does not teach or suggest all the limitations of claim 1, and claims 13, 14, 28, and 29 which depend therefrom, Applicants submit that the claims are patentable over Lassmann. Reconsideration and removal of the obviousness rejections over Lassmann are respectfully requested.

3. **Rejection of claims 1-8 and 12-14 under 35 U.S.C. 103(a) as being obvious over U.S. Publication No. 2004/0191198 A1 to Hochstein et al. (hereafter "Hochstein"), in view of International Publication No. 02/090448 to Anselmann et al. The English language equivalent, U.S. Patent No. 7,226,503 (hereafter "Anselmann"), was used for the citation of column and line.**

In particular, the PTO alleges:

The component B comprises of spherical colorant or filler. The component B can be a transparent substrate. But they are silent about the effect pigment aspect ratio as applicant set forth in claim 1.

*(Office Action of 7/23/09, p. 6, first par.)*

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree. After a careful reading of Hochstein, Applicants can not find any teaching or suggestion that component B is transparent as required by Applicants' claim 1.

In response, the PTO states:

The applicant argues that Hochstein et al. is silent about the component B is transparent. The Examiner respectfully submits that Hochstein et al. disclose that colorant and filler can be used as component B and colorant for example interference pigment can be transparent.

*(Office Action of 1/6/10, p. 3, last paragraph)*

Applicants respectfully disagree. There is no disclosure in Hochstein that interference pigments can be transparent. Although interference pigments can be based on glass flakes, which may be transparent, Hochstein teaches that the glass flakes are coated with metal oxides (p. 2, paragraph 23). Although Hochstein teaches that the metal oxides may be colored or colorless, Hochstein does not teach or suggest that the metal oxides are transparent. More importantly however, Applicants' claim 1 as herein amended requires that particles (B) comprise a binder. The interference pigments set forth in Hochstein are not binders.

Support for the PTO's position is respectfully requested. When the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference. *In re Yates*, 211 U.S.P.Q. 1149, 1151 (C.C.P.A. 1981).

In addition to the foregoing difference between the disclosure of Hochstein and the present claims, Hochstein does not teach or suggest the following limitations of claim 1:

that the at least one leaflet-shaped effect pigment is in parallel orientation to the surface of the leaflet-shaped particles (A); and

that the non-leaflet shaped particles and leaflet-shaped particles of (B) have an average size of from 20 to 500  $\mu\text{m}$ . Instead, Hochstein teaches that the particles have a particle size of 0.001 to 10  $\mu\text{m}$ , well below the range set forth in the present claims.

With respect to new claims 28 and 29, Hochstein does not teach or suggest that the at least one oligomeric and/or polymeric binder of the particles (A) has a melting point or melting range situated at least 10°C below the melting point or melting range of the binder of the particles (B) or a minimum film-forming temperature of at least 0°C.

Since Hochstein does not teach or suggest all the limitations of claim 1, and claims 7-8, 12-14, 28, and 29 which depend therefrom, Applicants submit that the claims are patentable over Hochstein in view of Anselmann. Reconsideration and removal of these obviousness rejections are respectfully requested.

4. **Rejection of claims 9-11 under 35 U.S.C. 103(a) as being obvious over US 2004/0191198 A1 to Hochstein et al. (hereafter “Hochstein”), in view of International Publication No. WO 02/090448 to Anselmann et al. and further in view of U.S. Patent No. 5,565,025 to Schraml-Marth (hereafter “Schraml-Marth”).**

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree, at least to the extent that the rejection may apply to the claims as herein amended. Claims 9-11 depend from claim 1, which is itself believed to be patentable over Hochstein in view of Anselmann as set forth in Section 3. Therefore, claims 9-11 are likewise patentable.

Reconsideration and removal of these obviousness rejections are respectfully requested.

5. **Rejection of claims 1-15 under 35 U.S.C. 103(a) as being obvious over U.S. Publication No. 2003/0008963 to Hashizume (hereafter “Hashizume”) in view of U.S. Patent No. 6,017,989 to Malm et al. (hereafter “Malm”).**

In particular, the PTO alleges:

Regarding claims 1, 5 and 12-13, Hashizume disclose that a composition comprises aluminum flake pigment (effect pigment) and rounded resin particles can be used in auto industry (abstract, [0001]). Example of the powder resin includes polyester or acrylic resin resins ([0008]). The effect pigment has an aspect ratio of 5-100 [0013]). But they are silent about the resin is transparent.

*(Office Action of 7/23/09, p. 7, last par. to p. 8, first par.)*

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree, at least to the extent that the rejection may apply to claim 1 as herein amended, or to new claims 28-29. Hashizume discloses a colored metallic powder coating composition

comprising a colored metallic flake *adhered on each particle surface of a resin powder* (Hashizume claim 1). Moreover, Hashizume teaches in par. 6:

Characteristic of the present invention is to adhere a colored metallic flake onto each particle surface of a resin powder. By adhering a colored metallic flake onto each particle surface of a resin powder, a powder coated paint film having a high saturation (saturation value  $\geq 10$ ) and an excellent metallic sensation can be obtained with a high adhesion efficiency.

In response, the PTO states:

The applicant argues that Takano and Hashizume disclose that the pigment is bounded to the resin. The Examiner respectfully submits that there is no limitation in the claims that the compound B can not be bound with compound A. The Examiner interprets the limitation that .....which are free from leaf-shaped effect pigment” as the compound when it is a leaf-shaped particle it can not be leaflet-shaped effect pigment.

*(Office Action of 1/6/10, p. 3, third paragraph)*

Applicants respectfully disagree. Claim 1 has been amended with the following limitation: “the non-leaflet shaped particles and leaflet-shaped particles of (B) . . . are free from leaflet-shaped effect pigments”. This limitation makes it clear that both the non-leaflet and leaflet shaped particles of (B) are free from leaflet-shaped effect pigments. In order for this claim limitation to apply, component (A) (comprising leaflet-shaped effect pigment) cannot be bound with component (B).

In addition to the foregoing difference between the disclosure of Hashizume and the present claims, Lassmann does not teach or suggest the following limitations of claim 1:

that the at least one leaflet-shaped effect pigment is in parallel orientation to the surface of the leaflet-shaped particles (A); and

that the non-leaflet shaped particles and leaflet-shaped particles of (B) have a laminar diameter D to layer thickness d, D:d, of  $< 10:1$ .

With respect to new claims 28 and 29, Hashizume does not teach or suggest that the at least one oligomeric and/or polymeric binder of the particles (A) has a melting point or melting range situated at least 10°C below the melting point or melting range of the binders of the particles (B) or a minimum film-forming temperature of at least 0°C.

Since Hashizume does not teach or suggest all the limitations of claim 1 and claims 2-14, 28, and 29, which depend therefrom, Applicants submit that these claims are not obvious over Hashizume.

Reconsideration and removal of these obviousness rejections are respectfully requested.



### CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

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